FEDERAL FACILITIES FORUM TELECONFERENCE
December 13, 2001

ORD DNAPL WORKSHOP SUMMARY

Steve Mangion (Region 1) provided highlights of the DNAPL Workshop held by ORD this past fall. The workshop was held to provide a forum for the exchange of information on DNAPL source removal vs. containment, and to gain a better understanding of the status of ORD research on DNAPL. Approximately 50 technical experts representing government, academic, and consulting organizations participated in the workshop. Key points were made during the workshop:

- EPA regional cleanup efforts tend to focus on the mobile phase of DNAPL. Models developed by private industry, however, frequently show that no measurable benefits (in terms of risk reduction) are gained by addressing the mobile phase. As a result, industry tends to focus on DNAPL containment rather than removal. Generally, academic organizations have found that insufficient data are available to make informed decisions regarding the cleanup of DNAPL sites.
- Monitored natural attenuation (MNA) may be used as a "polishing" step for residual DNAPL. While MNA has shown to be effective for contaminants such as BTEX, it is not reliable for removing others such as chlorinated solvents. In addition, the use of MNA increases overall project costs due to the need for extended monitoring.
- Better tools are needed for site characterization.
- Assumptions made in the development of economic models need to be closely examined.
- A need for increased technology transfer exists.
- Additional research is needed in specific DNAPL-related issues.
- Mass flux measurements may be useful in evaluating DNAPL reduction.

An executive panel will compile and issue a report on the workshop findings during the next six months. Follow-up to the workshop is expected to include the development of a DNAPL Web site and possibly additional ORD workshops.

PUMP AND TREAT OPTIMIZATION STUDY

Kathy Yager (TIO) described the status of TIO's current pump and treat (P&T) optimization study, which focuses on the identification of issues and problems that are common in the use of P&T. TIO has found that other government agencies are very interested in P&T optimization, and that some (such as the U.S. Air Force and Navy) are conducting similar studies. EPA has evaluated 20 pump and treat systems over the past year and expects to evaluate an additional 10 systems. Information gained from EPA's P&T study will be made available to the Forum in the future.

HSRC UPDATE

Camille Hueni (Region 6) provided an overview and update on the Hazardous Substance Research Centers (HSRCs). Each of the five HSRCs operate through academic consortiums in various regions of the country to conduct research in distinct focus areas. As one of the HSRC organizational sponsors, TIO has asked the TSP Forums to work more closely with the HSRCs. Hueni will serve as the primary liaison in this effort, with support from Vince Malott (Region 6) and Sharon Frey (ORD). Additional information on HSRC memberships, focus areas, and research results is available on the Internet at www.hsrc.org.

REGION 2 TECHNICAL ISSUES

Bill Roach (Region 2) summarized technical issues encountered in cleanup work at two Region 2 sites. At one of these sites, EPA likely will enter formal dispute with the Army concerning its use of a P&T system that is capturing only 62% of a contaminant plume. In a 1996 five-year review, EPA had recommended enhancements be made to the system to improve the rate of plume capture. Since that time, however, the Agency has collected additional data indicating the continued insufficiency of the system's pumping rate and overall operation. Despite past recommendation from EPA, the Army has not installed monitoring wells downgradient of the treatment system and has not implemented a monitoring program.

At another Region 2 site, a pilot study was conducted on the use of Ferox™ zero-valent iron powder injections to remove VOCs from ground water. Using a pneumatic fracturing probe system, a slurry containing zero-valent iron powder and nitrogen gas were injected into the geologic formation through a series of 18 injections. VOC concentrations that increased immediately after the injections eventually dropped significantly. In one injection area, for example, concentrations fell from 1,100 ppb to 200 ppb. The drawbacks of this technology include the potential increase in contaminant migration as a result of hydrofracturing, and the potential alteration of an aquifer's hydraulic properties caused by exposure to the large quantities of iron that are injected. More information on this technology is available on the Internet at www.arstechnologies.com.

SPRING 2002 TSP MEETING

Forum Co-Chairs are discussing the possibility of holding the spring TSP meeting in conjunction with a joint meeting of the ITRC and U.S. DOE in Denver, CO, during early June. John Quander (TIO) indicated that the meeting agenda would be developed jointly by the three organizations. It was noted that a combined meeting such as this would facilitate increased cooperation between the ITRC and Forums. The ITRC welcomes the opportunity to offer the Federal Facility Forum's perchlorate training to the wide audience anticipated at this meeting. The Forum agreed that the logistics of holding the joint meeting should be pursued.

OPEN MIKE/REGIONAL ISSUES

Chris Villarreal (Region 6) reported that the results of EPA's revised *Perchlorate Toxicological Review and Risk Characterization* will be issued in January 2002. On a similar note, the State of Texas has lowered its perchlorate cleanup standards, based on recent findings concerning bioaccumulation of perchlorate in fish.

Quander reported that only 50% of the Federal Facilities Forum members attended the November TSP meeting in Boston. As sponsors of the TSP Forums, TIO requires that all official Forum members attend these semi-annual meetings. If a member cannot attend a particular meeting, an alternate representative who is familiar with the Forum's issues must attend.

ATTENDEES

Steve Mangion, Region 1
Bill Roach, Region 2
Jim Barksdale, Region 4
Felicia Barnett, Region 4
Camille Hueni, Region 6
Laura Stankosky, Region 6
Chris Villarreal, Region 6
Glenn Kistner, Region 9
John Quander, TIO
Kathy Yager, TIO
Sandra Novotny, EMS, Inc.